BUFFALO "BEST BUILT" STEAM PUMPS

Sectional Edition A of Our

CATALOG No. 227

Small Duplex Pumps

BUFFALO STEAM PUMP COMPANY

BUFFALO, N. Y., U. S. A.

Manufacturers of Steam, Power and Centrifugal Pumping Machinery, Vacuum Pumps and Condensers of Every Description For All Requirements

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LONDON, ENGLAND



CATALOG No. 227



Buffalo Duplex Boiler-Feed Pumps

Piston Pattern



Fig. 704 Size, $3 \times 2 \times 3\frac{1}{2}$



Fig. 705 Size, 6 x 4 x 6



Fig. 706 Size, 7½ x 5 x 8

Note: —Discharge Air Chamber furnished without extra charge on these 12" stroke pumps. Also 6 x 12 and 7 x 12 pumps have spool crosshead.

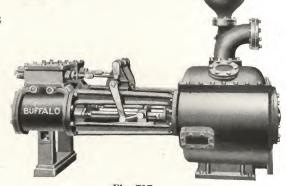


Fig. 707 Size, 12 x 8 x 12



CATALOG No. 227



Buffalo Duplex Boiler-Feed Pumps

Piston Pattern. For 150 Pounds Maximum Pressure

The "Buffalo" pump offers the advantages of over thirty years' experience in building all types of pumping machinery. Exceedingly simple in design, all parts are accurately made of the most suitable materials and are interchangeable. Large stuffing boxes are provided, allowing ample packing space. The moving parts being of large dimensions, a minimum amount of wear and friction and proportionately longer life are assured.

Standard sizes and replacement parts can be shipped from stock. For Low Steam Pressure Pumps refer to next page.

813	92	ke	eed	y Ite	ply		Pipe	Sizes			Regular	Brass
Diameter Steam Cylinders	Diameter Water Pistons	of Stroke	Rated Piston Speed Feet per Minute	Rated Capacity Galls, per Minute	Horse Power Boiler Will Supply	В	ıst	no	arge	Approximate Width and Length Inches	Fitted	Fitted
Біаг Беят (Dia	Length of	ted Pis eet pe	tated alls. p	Horse iler W	Steam	Exhaust	Suction	Discharge	Approx Wi and I	Code Word	Code
Ď		ñ	Ra		st simil	ar to	Fig	704 :	and F		Word	word
	If	stear	n pres							Fig. 708,	next page	.
3	$ \begin{array}{c} 2 \\ 2 \frac{1}{4} \\ 2 \frac{3}{4} \\ 3 \frac{1}{2} \\ 3 \frac{1}{2} \end{array} $	31/2	35	11.4	50	1/2	3/4 3/4 3/4	11/4	1	10 x 28	Deach	Dedue
$3\frac{1}{2}$	$\frac{21}{4}$	4	35	14.4	80	1/2	3/4	$\frac{11/2}{2}$	$1\frac{1}{4}$	11×30	Deads	Dcdol
$\frac{41/2}{2}$	234	4	35	21.5	125	1/2	3/4	2	$\frac{11}{2}$	13×30	Dealb	Dcdsi
$ 3\frac{1}{2} $ $ 4\frac{1}{2} $ $ 5\frac{1}{4} $ $ 5\frac{1}{4} $	31/2	5	40	40	200	1/2 1/2 1/2 1/2 3/4 3/4	11/	$ \begin{array}{c c} 2\frac{1}{2} \\ 2\frac{1}{2} \\ 3 \end{array} $	$\frac{11_{2}}{2}$ $\frac{2}{2}$	16×40	Deang	Dedun
0 1/4	3/2	6	50	50	250		$1\frac{1}{4}$ $1\frac{1}{2}$	2/2	2	19×44	Deard	Dedwe
6	4	6	50	65	400	1	1/2	3	2	17×42	Deast	Dedyn
					This lis	st sim	ilar t	o Fig.	706.			
7	4	8	65	85	500	1	$1\frac{1}{2}$	3	2 3	20×53	Dcbaf	Dceft
$7\frac{1}{2}$ $7\frac{1}{2}$ $7\frac{1}{2}$ $7\frac{1}{2}$	$4\frac{1}{2}$	8	65	107	600	$ \begin{array}{c} 1\frac{1}{2} \\ 1\frac{1}{2} \\ 1\frac{1}{2} \\ 1\frac{1}{2} \end{array} $	$\frac{2}{2}$	4	3	22×54	Dcbeg	Dcelc
$7\frac{1}{2}$	5	8	65	132	700	$1\frac{1}{2}$	2	4	3	22×54	Dcbfo	Dcend
$\frac{71/_{2}}{2}$	$4\frac{1}{2}$	10	75	124	700	$1\frac{1}{2}$	2	4	3	23×61	Dcbih	Dcerk
$7\frac{1}{2}$	5	10	75	153	900	$1\frac{1}{2}$	2	4	3	23×61	Dcbju	Dcess
9	51/4	10	75	168	1000	2.	$2\frac{1}{2}$	5 5	4	27×68	Dcbmy	Dcfaj
10	6	10	75	219	1400	2	$2\frac{1}{2}$		4	27×68	Deboj	Dcfby
10	7	10	75	300	2000	2	$2\frac{1}{2}$	6	5	27×68	Debsa	Dcjek
					This lis	t sim	ilar t	o Fig.	707.			
12	6	12	80	233	1500	$ \begin{array}{c} 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 3 \end{array} $	3	6	5	31×94	Dcbuk	Defga
12	7	12	80	320	2100	21/2	3	6	5 5	31×94	Dcbwe	Dcfil
12	8	12	80	418	2700	$2\frac{1}{2}$	3	8	6	33×94	Dcbye	Dcfke
14	8	12	80	418	2700	3	4	8	6	36×94	Dcdah	Dcfui
12	$\frac{8\frac{1}{2}}{8\frac{1}{2}}$	12	80	470	3000	$2\frac{1}{2}$	3	8 8	6	36×94	Dcdbu	Defon
14	81/2	12	80	470	3000	3	4		6	36×94	Dcdej	Dcfso
14	9	12	80	529	3200	3	4	8	6	36×94	Dcdfy	Defun
14 16	10	12	80	653	4000	3	4	10	7	42×98	Dedik	Defwu
	10	12	80	653	4000	3	4	10	7	42×98	Dcdka	Dcfxp



CATALOG No. 227



Buffalo Duplex Automatic Feed Pumps and Receivers

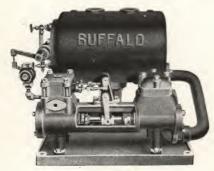


Fig. 712 Size, $4\frac{1}{2} \times 2\frac{3}{4} \times 4$



Fig. 714 Size, 4½ x 2¾ x 4



Fig. 715
Special Pump and Receiver outfit.
Prices on application.



Fig. 716 Size, 2¾ x 4



CATALOG No. 227



Buffalo Duplex Automatic Feed Pumps and Receivers

The unit consists of a suitably constructed cast-iron receiving tank, mounted in combination with a Boiler Feed Pump on a common bed plate. The tank is mounted slightly above the pump, giving a sufficient head of water above the suction valves to insure the pump always receiving a full supply of water.

Within the tank is provided a float connected to a chronometer valve controlling the steam supply to the pump. Inflowing water causes float to rise, thereby opening the steam supply and starting the pump. When the water level has been lowered, the float automatically cuts off the steam. In this way the condensation water is returned to the boiler as fast as it accumulates.

In requesting prices on Electric Pumps and Receivers give details of electric current available and pressure pump is to discharge against. Propositions on Centrifugal Pumps and Receivers on receipt of details.

	1								
ers	2	oke	ty	tors	e .	ings	d ver rrip	Regular	Brass
ster	Diameter Water Pistons	Str	Pump Capacity Galls, Minute	Feet Radiators face Apparatus Will Drain	Approximate Width and Length Inches	Tumber Openings in Receiver for Return Drip	Size Tapped Openings Top of Receiver for Return Drip	Fitted	Fitted
Diameter um Cylin	Diameter ater Pisto	th o	np Cills.	eet F ce A Vill J	proxima Width d Lengt Inches	0 =	ze T Open of I Retu	Code	Code
Diameter Steam Cylinders	War	Water Pistons Length of Stroke Pump Capacity Galls, Minute		Sq. Feet Radiators Surface Apparatus Will Drain	Number in Re for Ret	Si Top for	Word	Word	
			With s	tandard bo	iler feeders.	Fig.	712		
3	2	31/2	10	5000	24 x 30	1	21/2	Dclpe	Denir
$\frac{3}{4\frac{1}{2}}$	$\frac{2}{2}\frac{3}{4}$	4	20	10000	32×46	2	$2\frac{1}{2}$	Dclti	Dcnli
$5\frac{1}{4}$	31/4	5	40	20000	34×54	3	$2\frac{1}{2}$	Dcluv	Denow
$5\frac{1}{4}$	$\frac{31/2}{31/2}$	6	45	25000	34×54	2 3 3 3	21/2	Dclwp	Dcnsv
6	$\frac{372}{4}$	6	60	40000	34×54	3	$2\frac{1}{2}$	Delxo	Dcntu
7	4	8	80	50000	40×65	3	21/2	Dclyn	Denux
$7\frac{1}{2}$	$\frac{1}{4\frac{1}{2}}$	8	100	60000	40×65	3	$\begin{array}{c} 2\frac{1}{2} \\ 2\frac{1}{2} \end{array}$	Demar	Denxy
		Wi	th low-st	eam pressi	ire pumps.	Fig. 7	08. Pag	e 10.	
3	1½	31/2	6	3000	24 x 30	1	21/2	Demcy	Denyz
$\frac{3}{4\frac{1}{2}}$	$\hat{2}^{72}$		11	6000	32×46	2 3	21/2	Demha	Dcoct
6	2	6	16	9000	34×54	3	21/2	Demle	Dcolf
$7\frac{1}{2}$	$\frac{1}{2}$ $\frac{1}{2}$	6	$\frac{10}{25}$	15000	38 x 56	3	$\begin{array}{c c} 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \end{array}$	Demov	Dcoms
			With or	utside cente	er-packed p	ımps.	Fig. 714		
41/	23/4	4	20	10000	32×52	2	21/2	Dempi	Deorg
$\frac{41}{2}$	21/4	6	45	25000	34×62	$\frac{2}{3}$	21/2	Demto	Dcosk
$\frac{51/4}{6}$	31/2	6	60	40000	34×62	3	21/2	Dcmuw	Dcoth
$7\frac{1}{2}$	41/2	10	100	60000	30×94	3	$\frac{21/2}{21/2}$	Dcmxu	Dcpbt
-				With pow	er pumps.	Fig. 71	16.		
	2	4	10	5000		1	21/2	Demyx	Depde
	$\frac{2}{2}\frac{3}{4}$		20	10000	ds ds	2	21/2	Denas	Dcphi
	214	6			do do	3	21/2	Denda	Depiw
	3/2	6			Mo	3	21/2	Denet	Deplo
		0			A	3	21/2	Denhe	Depox
	$ \begin{array}{c c} 3\frac{1}{2} \\ 4 \\ 4\frac{1}{2} \end{array} $	6 6 8	45 60 80	20000 40000 50000	Depends on Motor	1 2 3 3 3	$\begin{array}{ c c c c }\hline 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ \end{array}$	Denet	Dcp



CATALOG No. 227



Buffalo Underwriter Fire Pumps

In Accordance with Latest Specifications of Underwriters

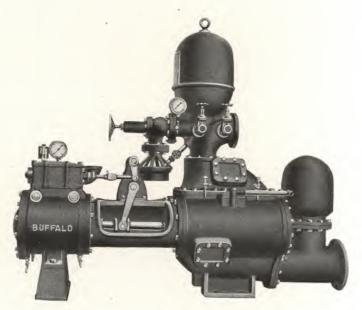


Fig. 726 Size, 18 x 10 x 12

Note:—In ordering, forward to our factory at North Tonawanda, N. Y., a hose coupling to be used as template for threading hose valves on pumps, as different cities have different hose coupling standards. The template sent us should be carefully marked for identification and will be returned with the pump.



CATALOG No. 227



Buffalo Duplex Underwriter Fire Pumps

"Underwriter Pump" is the name adopted by the Associated Factory Mutual Fire Insurance companies, to designate a duplex steam fire pump, built in strict accordance with the latest revised edition of the specifications issued by them.

The principal points of difference between the Underwriter Pump and the ordinary commercial pump are:

1st—Its steam ports and water passages and air chamber are made much larger than in common trade pumps, so that a larger volume of water can be delivered in an emergency without water hammer.

2nd—It is "rust-proofed," that it may start instantly after disuse, by making its piston rods and valve rods of tobin bronze, instead of steel; its water pistons, stuffing boxes and rock shaft bearings of brass, instead of cast iron. Its valve levers are made of steel or wrought-iron forgings, or of steel castings.

3rd—The following necessary attachments are all included in the price of the Underwriter Pump, viz.: A vacuum chamber, two pressure gauges, a relief valve, a set of brass priming pipes, 2 to 6 hose valves, a stroke gauge, a capacity plate, an oil pump, a sight-feed lubricator and a cast-iron relief valve discharge cone and air vent connection.

To maintain 100 pounds water pressure while operating at full speed this pump requires the following boiler horse power: 500 gallon pump, 100 H. P. at 40 pounds steam pressure; 750 gallon pump, 115 H. P. at 45 pounds; 1000 gallon pump, 150 H. P. at 45 pounds, and the 1500 gallon pump, 200 H. P. at 50 pounds steam pressure. In some instances it is advisable to install a larger pump than the existing boiler can drive at full capacity, as a small boiler will drive a 750 gallon pump at the 500 gallon speed with as good economy as it can drive the 500 gallon pump at full speed. When this is done, the pump does not need to be changed when the plant is enlarged and the boiler power increased.

ons	22	22	ke	an		Pip	e Sizes	a .	Code	
Number of Galle Underwriters Rating	Diameter of Steam Cylinders	Diameter of Water Plungers	Length of Stroke	Number of Revolutions per Minute	Steam	Exhaust	Suction	Discharge	Approximate Width and Length Inches	Word Brass Fitted Including All Fittings
500 750 1000 1500	14 16 18 20	7 9 10 12	12 12 12 16	70 70 70 60	3 3½ 4 5	4 4 5 6	8 10 12 14	6 8 8 10	37 x 110 42 x 114 48 x 120 52 x 146	Dfkla Dfkot Dfkpe Dfk i t

Prices include fittings as specified by Underwriters.



CATALOG No. 227



Buffalo Duplex Piston-Pattern Tank Pumps



Discharge Air Chamber furnished without extra charge on these 12'' and 18'' stroke pumps

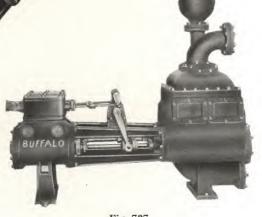


Fig. 737 Size, 10 x 9 x 12



Fig. **739** Size, 20 x 18 x 18



CATALOG No. 227



Buffalo Duplex Tank or Light-Service Pumps

Piston Pattern. For 75 Pounds Maximum Pressure

For light service, such as pumping water or other liquids short distances and limited heights, these pumps are both economical and effective. They combine large pumping capacity with small expenditure of steam, the cylinders being proportioned accordingly. They are principally used at railroad water stations, reservoirs, gas and oil works, bleacheries, tanneries, refineries, plantations, distilleries, chemical works, etc.

We can furnish valves in these pumps suitable for pumping hot, cold, thin, thick, alkaline or acidulous liquids, varying in gravity from alcohol to white lead, at small extra charge.

For quarries, clay pits, cofferdams, tunnels, foundation pits, ore beds, sewerage and irrigation purposes, these pumps are especially adapted, having large water passages and valve openings.

70		e l	pa	Pipe Sizes			gth	Regular	Brass		
Diameter Steam Cylinders	Diameter Water Pistons	Length of Stroke	Rated Piston Speed Feet Per Minute	Rated Capacity Galls. Per Minute	Steam	Exhaust	Suction	Discharge	Approximate Width and Length Inches	Fitted Code Word	Fitted Code Word
					This li	ist sim	ilar to	Fig. 7	36		
$ \begin{array}{c} 4\frac{1}{2} \\ 5\frac{1}{4} \\ 6 \\ 7\frac{1}{2} \\ 7\frac{1}{2} \\ 7\frac{1}{2} \end{array} $	$ \begin{array}{r} 3\frac{3}{4} \\ 4\frac{3}{4} \\ 4\frac{3}{4} \\ 5\frac{3}{4} \\ 5\frac{3}{4} \\ 6 \\ 6 \\ 7 \end{array} $	4 6 6 6 6 8 10 10	35 50 50 50 50 65 75 75	40 92 92 134 134 190 219 300	$ \begin{array}{c c} 1/2 \\ 3/4 \\ 1 \\ 1 \\ 1/2 \\ 1$	$ \begin{array}{c} 3/4 \\ 11/4 \\ 11/2 \\ 11/4 \\ 11/2 \\ 2 \\ 2 \\ 2 \end{array} $	2½ 3 3 4 4 5 5	$ \begin{array}{c} 2 \\ 2 \frac{1}{2} \\ 2 \frac{1}{2} \\ 3 \\ 4 \\ 4 \\ 5 \end{array} $	14 x 35 17 x 46 17 x 46 20 x 48 20 x 48 24 x 57 24 x 61 24 x 65	Dgaba Dgaed Dgafe Dgaif Dgaji Dgamo Dgaog Dgaru	Dgifo Dgiju Dgimy Dgioi Dgisa Dgiuk Dgiwe Dgoag
- / 2					This l	ist sim	ilar to	Fig. 7	37		
$7\frac{1}{2}$ 9 10 $7\frac{1}{2}$ 9 10	$\frac{81/2}{9}$	12 12 12 12 12 12 12	80 80 80 80 80 80	470 470- 529 653 653 653	$ \begin{array}{c c} 1\frac{1}{2} \\ 2 \\ 2 \\ 1\frac{1}{2} \\ 2 \\ 2 \end{array} $	$\begin{array}{c} 2 \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2 \\ 2\frac{1}{2} \\ 2\frac{1}{2} \end{array}$	8 8 8 8 8	6 6 6 6 6	36 x 74 36 x 74 36 x 74 36 x 78 36 x 78 36 x 78	Dgauh Dgavy Dgayi Dgead Dgebe Dgefi	Dgobo Dgoeh Dgofu Dgoij Dgoiy Dgona
				This	list sir	nilar to	Fig.	731.	Page 20		
9 10 12 12 14	12 12 12 14 14	12 12 12 12 12 12	80 80 80 80 80	939 939 939 1278 1278	$\begin{bmatrix} 2 \\ 2 \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 3 \end{bmatrix}$	$ \begin{array}{ c c c c } 2\frac{1}{2} \\ 2\frac{1}{2} \\ 3 \\ 4 \end{array} $	10 10 10 12 12	8 8 8 10 10	44 x 90 44 x 90 44 x 90 46 x 92 46 x 92	Dgeig Dgeio Dgemu Dgeoh Dgery	Dgose Dgoui Dgowl Dgoym Dguah
					This	list sin	nilar to	Fig.	739		
14 16 14 16 18 20	16 16 18 18 18 18	18 18 18 18 18 18	100 100 100 100 100 100	2088 2088 2644 2644 2644 2644	3 3 3 3 4	4 4 4 4 4 5	14 14 14 14 14 14 14	12 12 12 12 12 12 12	56 x 120 56 x 120 56 x 120 56 x 120 56 x 120 56 x 120	Dgeui Dgewa Dgeyk Dgiaf Dgibi Dgieg	Dgubu Dguei Dgufy Dguik Dguka Dgune



CATALOG No. 227



Buffalo Duplex Outside Center-Packed Plunger Pumps

For Boiler Feeding and General Service



Fig. 742 Size, 9 x 5 x 10

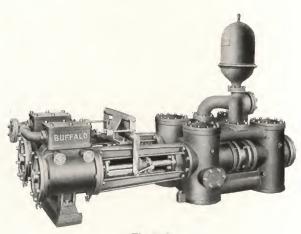


Fig. 743 Size, 12 x 8½ x 12

Discharge Air Chambers furnished without extra charge on these 12'' and 18'' stroke pumps. 6×12 and 7×12 have spool crossheads. Note catch basin for drip from plunger glands, Fig. 743.



CATALOG No. 227



Buffalo Duplex Outside Center-Packed Plunger Pumps

For 200 Pounds Maximum Pressure

This type of pump is less liable to wear when handling muddy or gritty liquids than either the packed piston or plunger and ring design. The steam ends are the style as used in our other duplex pumps, but the water ends are designed for a water pressure of 200 pounds, and being constructed with external stuffing boxes they can easily be looked after from the outside. Glands are simple, allow ample packing space and are easily accessible.

These machines will be found especially desirable in any class of service where a pressure in excess of 150 pounds is maintained.

For these pumps with compound steam cylinders see Fig. 746 and Fig. 747 on next page.

ers	ers	Stroke	n 1te	ity ute		Pip	e Sizes			Regular	Brass
Diameter Steam Cylinders	Diameter Water Plungers		Rated Piston Speed Feet per Minute	Rated Capacity Galls, per Minute	а	ıst	uc	rge	Approximate Width and Length Inches	Fitted	Fitted
Diar m (Diar ter]	th o	Sp Sp	ed (Steam	Exhaust	Suction	Discharge	Wi Wi d L	Code	Code
Stea	Stea I Wat	Length of	Ra Feet	Rat	02	图	<i>σ</i> Ω	Dis	Ap	Word	Word
					This li	ist sim	ilar to l	Fig. 742			
$4\frac{1}{2}$	23/4	4	35	21.5	1/2	3/4	2	11/2	14 x 48	Dkabs	Dkbso
$\frac{4\frac{1}{2}}{5\frac{1}{4}}$	$3\frac{1}{2}$	6	50	50	$\frac{1}{3}\frac{1}{4}$	11/4	$\frac{2}{2\frac{1}{2}}$	$ \begin{array}{c c} 1\frac{1}{2} \\ 2 \\ 3 \\ \end{array} $	16×63	Dkagh	Dkbun
6	4	6	50	65	1	11/2	3	2	18×64	Dkahi	Dkbwi
$\frac{71}{2}$	$\frac{4\frac{1}{2}}{5}$	10	75	124	$\frac{11}{2}$	2	4	3	22×80	Dkajd .	Dkbyp
10	5	10 10	75 75	153 153	$\frac{2}{2}$	$\frac{2\frac{1}{2}}{2\frac{1}{2}}$	5 5	4 4	25 x 86 25 x 86	Dkalm Dkamg	Dkcel Dkcge
			10	100		2/2	0		20 x 60	Drang	Drige
					This li	ist sim	ilar to I	Fig. 743			
10	6	12	80	233	$\frac{2}{2}$ $\frac{21}{2}$	$ \begin{array}{c} 2\frac{1}{2} \\ 2\frac{1}{2} \\ 3 \\ 3 \end{array} $	6	5	31 x 105	Dkant	Dkcim
10	7	12	80	320	2	$\frac{21}{2}$	6	5 5	31×105	Dkapf	Dkcki
12	7	12	80	320	$\frac{21}{2}$	3	6	5	33×105	Dkarp	Dkcno
12 14	$\frac{81/_{2}}{81/_{2}}$	12 12	80 80	470 470	$\frac{21\sqrt{2}}{3}$	3	8	6	40 x 108	Dkask	Dkcos
14	9	12	80	529	3	4 4	8 10	6 8	42 x 108	Dkavz	Dkcsu
14	9	14	80	329	9	4	10	8	48 x 118	Dkbaj	Dkeup
14	10	12	80	653	3	4	10	8	48 x 118	Dkbek	Dkcwy
16	10	12	80	653	3	4	10	8	48 x 118	Dkbga	Dkcyr
18	10	12	80	653	3	4	10	8	48 x 118	Dkbil	Dkdal
18	12	18	100	1174	3	4 5	12	10	54×134	Dkbke	Dkdce
20	12	18	100	1174	4	5	12	10	54 x 134	Dkbni	Dkdem
20	14	18	100	1598	4	5	12	10	54×134	Dkbom	Dkdqi



CATALOG No. 227



Buffalo Duplex Outside End-Packed Plunger Pumps

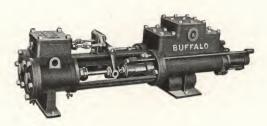


Fig. 749 Size, 6 x 3 ½ x 6



Fig. 750 Size, 7½ x 4½ x 8

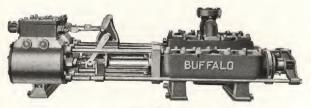


Fig. 751 Size, 12 x 6 x 12

Note:—Steam Cylinders lagged with Russia Iron, similar to Fig. 751, at extra cost only. Cushion Valves furnished only on 12" stroke sizes.



CATALOG No. 227



Buffalo Duplex Outside End-Packed Plunger Pumps

For Boiler Feeding and General Service For 300 Pounds Maximum Pressure

On opposite page we show our improved heavy-pressure duplex pumps. These machines are built from extra-heavy patterns for the hardest service. High pressures on modern boilers have compelled the production of a type which can easily handle from 150 pounds up, and this machine has been constructed to meet this demand, as well as that for any special heavy service. Particular attention has been given the construction of all parts, as the work for which they are intended is much more severe than ordinary. If pressure in excess of 300 pounds is to be handled we furnish another specially-built machine with cast or forged steel water ends, which is covered by our extra-heavy pressure design, illustrated and listed elsewhere.

STS	22	oke	1 te	ty ute		Pipe	Sizes		e c	Regular	Brass
meter Cylinders	inge	Str	Rated Piston Speed eet per Minut	paci		دب	_	e e	Approximate Width and Length Inches	Fitted	Fitted
Diameter am Cylin	Diameter ter Plung	p of	Spee	d Ca	Steam	Exhaust	Suction	Discharge	Width Width d Leng Inches	Code	Code
Dia Steam	Diameter Water Plungers	Length of Stroke	Rated Piston Speed Feet per Minute	Rated Capacity Galls, per Minute	St	Ex	Su	Disc	App	Word	Word
	-			Th	is list	similar	to Fig	, 749.			
$ \begin{array}{r} 4\frac{1}{2} \\ 4\frac{1}{2} \\ 5\frac{1}{4} \\ 6 \\ 6 \\ 6 \end{array} $	$ \begin{array}{c c} 1\frac{1}{2} \\ 2 \\ 3 \\ 3\frac{1}{2} \\ 4 \end{array} $	4 4 6 6 6 6 6	35 35 50 50 50 50	$ \begin{array}{r} 6.4 \\ 11.4 \\ 36.7 \\ 36.7 \\ 50 \\ 65 \end{array} $	1/2 1/2 3/4 1 1 1	$\begin{array}{c} 3/4 \\ 3/4 \\ 1/4 \\ 1/2 \\ 1/2 \\ 1/2 \\ 1/2 \end{array}$	$ \begin{array}{c} 1\frac{1}{2} \\ 1\frac{1}{2} \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \end{array} $	1 1 2 2 2 2	14 x 48 14 x 48 18 x 72 18 x 72 18 x 72 18 x 72	Dkfus Dkfxe Dkfyt Dkgan Dkgco Dkgep	Dkhxo Dkhyw Dkibz Dkifk Dkigd Dkihl
				Th	is list	similar	to Fig	g. 750.			
$\begin{array}{c} 7\frac{1}{2} \\ 7\frac{1}{2} \\ 7\frac{1}{2} \\ 7\frac{1}{2} \end{array}$	4 4 1/2 4 1/2	8 8 10	65 65 75	85 107 124	$\begin{array}{c} 1\frac{1}{2} \\ 1\frac{1}{2} \\ 1\frac{1}{2} \end{array}$	$\frac{2}{2}$	4 4 4	3 3 3	24 x 83 24 x 83 24 x 87	Dkgir Dkgky Dkgos	Dkiks Dkilv Dkinc
				Th	is list	simila	r to Fi	g. 751.			
9 10 10 10 12 12 12	$ \begin{array}{c c} 4\frac{1}{2} \\ 4\frac{1}{2} \\ 5 \\ 6 \\ 6 \\ 7 \\ 7\frac{1}{2} \end{array} $	10 10 10 10 12 12 12	75 75 75 75 80 80 80	124 124 153 219 233 320 366	$\begin{bmatrix} 2 \\ 2 \\ 2 \\ 2 \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \end{bmatrix}$	$\begin{array}{c} 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 2\frac{1}{2} \\ 3 \\ 3 \\ 3 \end{array}$	5 5 5 6 6 6	4 4 4 5 5 5 5	27 x 100 27 x 100 27 x 100 26 x 106 41 x 126 41 x 126 41 x 126	Dkgpa Dkgte Dkgut Dkgxi Dkgyv Dkhap Dkhcu	Dkipt Dkirn Dkisf Dkiwp Dkjar Dkjcy Dkjes



CATALOG No. 227



Buffalo Duplex Valve Pot Outside End-Packed Pumps



Fig. 754 Size, 7½ x 4½ x 10

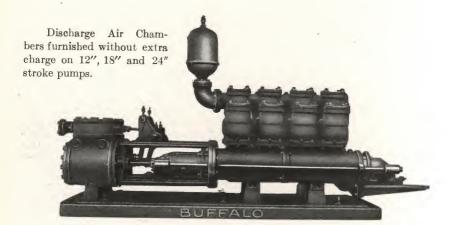


Fig. 755 Size, 16 x 9 x 12

Bed Plates furnished at extra price only.



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Buffalo Duplex Valve Pot Outside End-Packed Pumps

For 300 Pounds Maximum Pressure

In these pumps, each valve being in a separate pot with its individual cover may be quickly inspected and removed without disturbing any other part of the pump.

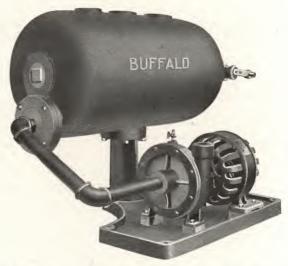
In the table below are listed pumps with simple steam ends, but on the larger sizes where steam economy may be of importance we recommend the use of compound steam cylinders. Prices on these machines will be furnished on request. See list of sizes on page 37. If desired, the exhaust may be into a Buffalo Condenser. Catalog and recommendations on request.

ers	ers	Stroke	ts	n ute	pacity Minute		Pipe S	izes			Regular	Brass
Diameter Steam Cylinders	Diameter Water Plungers		Number Pots r each Plunger	Rated Piston Speed Feet per Minute	Rated Capacity Galls, per Minut	g	is t	ű.	rge	Approximate Outside Dimensions Inches	Fitted	Fitted
Dian	Dian ter F	Length of	Numbe For each	Spe t per	ted Cs. pe	Steam	Exhaust	Suction	Discharge	pproxim Outside imension Inches	Code	Code
Ste	Wa	Len	For	Ra Fee	Rai		田	002	Di	A ₁	Word	Word
					This	list sir	nilar te	Fig.	754.			
$5\frac{1}{4}$	$3\frac{1}{2}$	6	1	50	50	3/4	$\frac{1\frac{1}{4}}{1\frac{1}{2}}$	3	2	24 x 62	Dqbxk	Dqdtm
6	4	6	1	50	65	1	$1\frac{1}{2}$	3	$\begin{array}{c} 2 \\ 2 \\ 3 \end{array}$	24 x 62	Dqbyn	Dqdts
$\frac{71}{2}$	4	8	1	65	85	$1\frac{1}{2}$	2	4	3	30×86	Dqcaj	Dqdup
7/2	$4\frac{1}{2}$	8	1	65	107	11/2	2	4	3	30 x 86	Dqcby	Dqdwy
$7\frac{1}{2}$ $7\frac{1}{2}$ $7\frac{1}{2}$ $7\frac{1}{2}$ $7\frac{1}{2}$	4	10	1	75	98	$ \begin{array}{c c} 1\frac{1}{2} \\ 1\frac{1}{2} \\ 1\frac{1}{2} \end{array} $	$\begin{array}{c} 2 \\ 2 \\ 2 \end{array}$	4	3	30 x 86	Dqcek	Dqdyr
0/2	$\frac{41}{2}$	10	1	75	124	1/2	2	4	3	30 x 86	Dqcga	Dect
9	$\frac{41}{2}$	10	1	75	124	2	$ \begin{array}{c} 21/2 \\ 21/2 \\ 21/2 \\ 21/2 \end{array} $	4	3	30 x 88	Dqcil	Dqelf
10	$\frac{41}{2}$	10	1	75	124	2	21/2	4	3	30 x 88	Dqcke	Dqems
9 10	5	10	1	75 75	$\frac{153}{219}$	2	21/2	5 5	4 4	36 x 90 36 x 90	Dqcni	Dagerg
12	6 5	12	1 1	80	163	$\begin{bmatrix} 2\\2\\2\\21/2\end{bmatrix}$	$\frac{21/2}{3}$	5	4	36 x 90 36 x 90	Decom	Dagesk
12	6	12	1	80	$\frac{105}{233}$	$\frac{272}{21/2}$	3	5	4	36 x 90	Dageso	Data
14	$\frac{61}{2}$	12	1	80	$\begin{array}{c} 255 \\ 275 \end{array}$	3	4	6	5	36×90	Dqcun Dqcwu	Dafal
14	$7\frac{1}{2}$	12	1	80	366	3	4	6	5	40×100	Dqcwa $Dqcyp$	Dqfce Dqfem
					This	list sir	nilar t	Fig.	755.			7
				T	hese siz	es also	made	in 18	B" str	oke.		
14	$7\frac{1}{2}$	12	2	80	366	3	4	7	- 6	50×160	Dqdak	Dqfgi
16	8	12	2	80	418	3	4	7	- 6	60×160	Dqdca	Dqfin
16	$8\frac{1}{2}$	12	2	- 80	470	3	4	8	6	60×166	Dqdel	Dqfko
18	9	12	2	80	529	3	4	8	6	60×166	Dqdge	Dqfnu
20	9	12	2	80	529	4	5	8	6	60×170	Dqdim	Dqfop
18	10	12	2	80	653	3	4	8	6	60×166	Dqdki	Dqfsy
20	10	12	2	80	653	4	5	8	6	60 x 170	Dqdno	Dqfur
			7	These s	izes als	o mad	e in 24	" str	oke.	Fig. 755.		
20	12	18	3	100	1174	4	5 .	12	10	74 x 190	Dqdon	Dqfxa
20	14	18	3	100	1598	4	5	12	10	74×190	Dqdsu	Dqfys



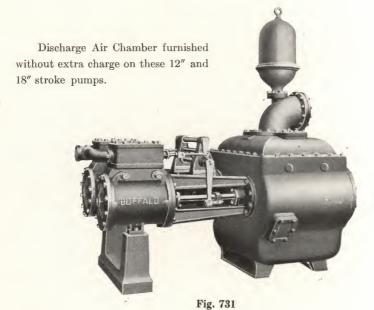
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Buffalo Centrifugal Electric Pump and Receiver for Low-Steam Pressure Installations, where Steam Pressure will not Operate Steam Pump.

(Inquiries should state electric current available.)



Size, 14 x 14 x 12

Buffalo Duplex Tank Pump